

REMARKS

Summary

Claims 1-7 are pending. Claims 8-12 have been added. No new matter was added as a result of this amendment.

Rejection of Claims

In the Office Action, Claims 1, 3-4, and 6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Matsuda (U.S. Patent 6,362,810) in view of Durrani (U.S. Patent 6,011,542), Claim 2 was rejected under 35 U.S.C. §103(a) as being unpatentable over Matsuda in view of Durrani in view of Kandogan (U.S. Patent 6,184,867), Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over Matsuda in view of Durrani in further view of Saito (U.S. Patent 4,777,600), and Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over Matsuda in view of Durrani in further view Okumura (U.S. Patent 5,966,719). Applicants traverse the rejections.

Claim 1 recites a character input apparatus that includes an inclinable operation unit, first and second detection units, and a control unit. The control unit selects character data from among N data groups based on the output detected from the first detection unit when the operation unit is inclined and finalizes the selected data based on the output detected from the second detection unit when the operation unit is operated in the direction different from the inclination direction. Such an arrangement permits an operator to quickly and easily enter character data without having to, for example: switch between different operation units to effect selection of the character, provide a large amount of space for the character input apparatus to be disposed, remember a particular key arrangement on the character input apparatus, operate keys a number of times such as needed for a keyboard, or repeatedly move a cursor to a desired character, such as for a game machine.

Neither Matsuda nor Durrani anticipate or suggest such an arrangement. Matsuda specifically teaches a conventional joystick that can be inclined and pushed up or down to execute three dimensional operations rather than using the combination of joystick and separate button.

Durrani, to the contrary, teaches a two-dimensional graphical screen displaying a text entry wheel in which a cursor on the screen is moved by the operation unit until the cursor overlaps a character on the wheel and then the wheel rotated (and thus character selected) by moving the operation unit in one of two directions (col. 3, line 53 – col. 4, line 8). More particularly, such a text entry system requires first moving the operation unit so that the cursor moves to the wheel (as well as the desired character on the wheel), then finalization of the selection in a manner unspecified by Durrani, then movement of the operation unit while the cursor remains on the wheel to select another character on the wheel, then finalization of the new selection and so on. The different directions mentioned in the passage of Durrani pointed out by the Examiner only serve to select the particular character, not finalize the selection. In fact, Durrani does not teach anything about movement in a particular direction to finalize the character selection or how this particular direction relates to any other direction used during selection.

Further, the text entry system of Durrani is similar to the known text entry system described in the background of the instant specification. Such a text entry system is problematic as it requires two dimensional positioning of the cursor, which is a cumbersome process, particularly when using a joystick or other device to control the motion of the cursor in a small screen. Not only is text entry cumbersome due to having to position the cursor, but another layer of complexity is added when entering strings of characters as the data must be entered serially in this system by rotating the wheel, thereby increasing the amount of time to enter the data. To the contrary, the arrangement of Claim 1 permits direct selection of characters with the operation unit using inclination of the operation unit. In other words, the user of the arrangement of Claim 1 inclines the operation unit to select the desired character, rather than having to fiddle with controls attempting to adjust both the direction and amount of rotation of a graphical wheel to select the desired character, as taught by Durrani.

Moreover, no motivation exists to combine Matsuda and Durrani. To establish a *prima facie* case of obviousness, the prior art must in general teach all of the elements present in Claim 1 as well as provide some suggestion or motivation for combining the references (and there must be a reasonable expectation of success) [see the discussion of Claim 5 for more detail, as well as MPEP 2143]. However, in

this case, Matsuda is directed towards incorporation of the mechanism that permits vertical motion with the mechanism that permits inclination of the joystick without unduly increasing the complexity of the joystick. Matsuda does not motivate or suggest the need for changing the manner in which a two dimensional display of a character wheel is used to select character data, as suggested by Durrani. Similarly, nor does Durrani provide any motivation or suggestion for altering an operation unit to make it more or less complex. Although Durrani states an object is to provide a text entry system in which the material can be entered by only one hand, this may simplify the ease of entry of data but has no bearing on the actual complexity of the mechanism used to provide the input. Thus, not only does the combination of Matsuda and Durrani not teach all of the elements present in Claim 1, but in addition no suggestion or motivation exists for combining the vertically-moving joystick mechanism of Matsuda with the character wheel display of Durrani.

For at least these reasons, neither Matsuda nor Durrani, alone or in combination, anticipate or suggest the arrangement of Claim 1. Thus, Claim 1 and Claims 2-12 are patentable over the cited prior art.

In addition, the dependent claims are independently patentable over the references cited by the Examiner.

For example, Claim 2 recites that the support is provided with two rotational shafts that are rotated when the operation unit is inclined and two rotation detection means for detecting a rotation magnitude of each rotation shaft, the two rotation detection means constitute the first detection unit, and the detected output is obtained from the second detection unit when the operation unit is moved in a direction perpendicular to the rotational shafts.

The Examiner states that Kandogan provides such an arrangement. However, once again Applicants submit that Claim 2 recites that the support has both two rotational shafts and two rotation detection means, which is entirely different from the arrangement taught by Kandogan, who provides two different operation units, each with one shaft and one detection means. Further, the passages pointed out by the Examiner merely state that two conventional joysticks are used, each of which outputs a pair of signals that signal the relative displacement from a neutral position but say nothing about the number of shafts or detection means. In fact, throughout the entire document Kandogan teaches exactly the

opposite: that two different operation units are necessary to achieve adequate navigation in three dimensions.

Nor does, of course, does Kandogan teach specifically the manner of detection recited in Claim 2, i.e. that the second detection unit detects output when the operation unit is moved in a direction perpendicular to the rotational shafts while the first detection unit, which contains the two rotation detection means, detects the rotation magnitude of each rotation shaft.

In addition, the Examiner further rejected Claim 2 based on the doctrine of Duplicate Parts for a Multiplied Effect. In general, the doctrine of Duplicate Parts for a Multiplied Effect refers to duplication of previously recited components in a dependent claim for the duplication of effects. However, Applicants submit that this doctrine is not valid in this case as Claim 2 does not merely add an additional element duplicating the function and makeup of an element recited in Claim 1 for a duplicated effect. More specifically, Claim 2 serves to further define elements of Claim 1, including: 1) the support (reciting that the support is provided with two rotational shafts and two rotation detection means, each of the shafts and detection means being further defined in the claim, 2) the first detection unit (reciting that two rotation detection means constitute the first detection unit), and 3) the manner in which the detected output is obtained (reciting that the detected output is obtained from the second detection unit when the operation unit is moved in a direction perpendicular to the rotational shafts). The mere fact that more than one component exists in a particular element is not enough to invoke Duplicate Parts for a Multiplied Effect. In summary, as none of the specifics of the shafts, detection means, the first detection unit or manner in which the detected output is obtained recited in Claim 2, is present in Claim 1, Applicants submit that the doctrine of Duplicate Parts for a Multiplied Effect may not be used as a valid rejection of Claim 2.

Moreover, dependent Claim 3 is independently patentable over the cited prior art as Applicants maintain that the passage cited by the Examiner (col. 2, lines 28-34) states nothing about selection of the data as recited in Claim 3. The passage in Matsuda to which the Examiner has directed Applicants attention states only that by inclining one of two shafts and holding down the other shaft, tilt and slide direction signals are produced, with no indication of how the signals are used. This passage does not anticipate or suggest either successive selection of the data or that this

successive selection is based on the output change of the first detection unit when the inclination direction is changed while the amount of inclination is maintained. Thus, for at least this additional reason, Applicants submit that Claim 3 is patentable over the references cited by the Examiner.

Similarly, Claim 5 recites that a conversion means for converting input data of alphabetical (Latin) characters to kana characters is provided. Once again, as stated in §2143 of the MPEP, "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Similarly, "[a] statement that modifications of the prior art to meet the claimed invention would have been " 'well within the ordinary skill of the art at the time the claimed invention was made' " because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references." *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). Applicants submit that no motivation exists to combine Matsuda and Saito. Saito teaches a method of converting input alphabetical character to kanji characters using a keyboard in which the conversion time and/or memory required for conversion is decreased. Matsuda teaches an improved joystick for three dimensional manipulation and force feedback during simulation, while Durrani teaches an improved graphical textual wheel system. However, in addition to no suggestion or motivation existing to combine the joystick of Matsuda and graphical textual wheel system of Durrani (as above), no suggestion or motivation exists to combine either of these with the translation method of Saito using a keyboard as an entry system and which is directed towards decreasing either the conversion time or amount of memory used. Thus, for at least this additional reason, Applicants submit that Claim 5 is patentable over the references cited by the Examiner.

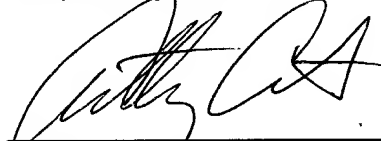
For similar reasons, Applicants submit that Claim 7 is patentable over the references cited by the Examiner.

For at least these reasons, none of the prior art cited, alone or in combination, anticipate or suggest the arrangement of Claims 2-12. Thus, Claims 2-12 are independently patentable over the cited prior art.

Conclusion

In view of the amendments and arguments above, Applicants respectfully submit that all of the pending claims are in condition for allowance and seek an early allowance thereof. If for any reason the Examiner is unable to allow the application in the next Office Action and believes that a telephone interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned.

Respectfully submitted,



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